

GREATER DIGITAL INFRASTRUCTURE
 FOR GREATER WHITSUNDAY

REGIONAL CONNECTIVITY PROJECTS



November 2024

Unlocking economic potential through investment in digital infrastructure

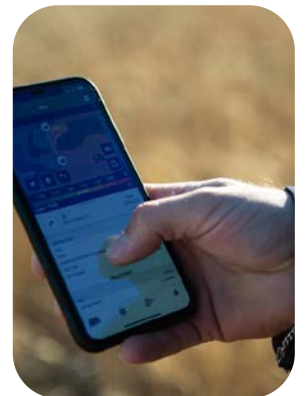
The region's industries including agriculture and aquaculture, mining and METS, biomanufacturing and tourism are rapidly advancing into high-tech operations. Despite ongoing upgrades to connectivity infrastructure by telecommunication providers, a rapid increase in digital technology adoption is outpacing these improvements, particularly in regional and remote locations.

As a result, some users are experiencing poorer connectivity, with previously reliable systems, such as automated irrigation, now struggling to function due to insufficient connectivity. While emerging technologies, particularly low-earth-orbit satellites, present some hope for ubiquitous coverage into the future, the reality is that today in many parts of the region people remain, at an often costly, disadvantage.

Ongoing assessment of the region's foundational infrastructure and consistent advocacy for upgrades is essential for industries to keep pace with digital developments, leverage relevant productivity and address safety concerns.

Without seamless digital connectivity from a reliable infrastructure network, the Greater Whitsunday region's ability to sustain and grow will be significantly compromised.

The Connect Greater Whitsunday project, led by GW3 and with support from the Regional Digital Connectivity Forum, including representatives from Mackay Regional Council, Isaac Regional Council and Whitsunday Regional Council, has identified a list of digital infrastructure projects that are ready for investment and will drive safety, productivity and community outcomes.



Investing in digital infrastructure is crucial for the region for several reasons:

Economic Growth: Digital infrastructure supports the development of new industries and enhances existing ones, driving economic growth by creating jobs and attracting businesses.

Enhanced Connectivity: Improved digital infrastructure facilitates better communication and collaboration among businesses, government, and communities, fostering innovation and efficiency.

Access to Services: Strong digital networks enable residents to access essential services such as healthcare, education, and government resources more easily, improving overall quality of life.

Community Safety: Reliable digital infrastructure is vital for emergency services and disaster response. It ensures that communities can communicate effectively during crises, enhancing public safety and resilience.

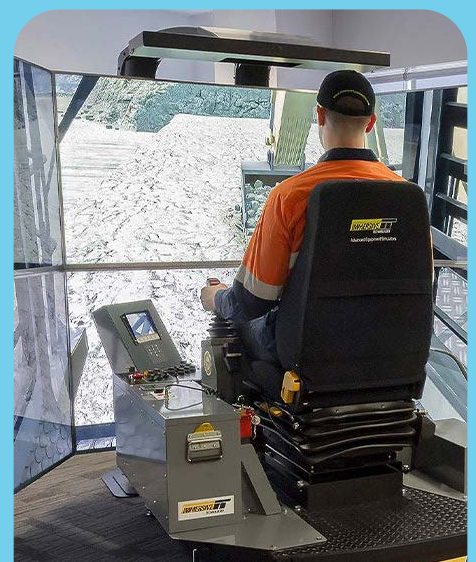
Inclusion and Equity: Investing in digital infrastructure helps bridge the digital divide, ensuring that all community members, regardless of their socioeconomic status, have access to technology and the internet.

Attracting Investment: Regions with robust digital infrastructure are more attractive to investors and businesses, as they provide the necessary tools for growth and innovation.

Supporting Remote Work and Learning: The rise of remote work and online education underscores the need for strong digital infrastructure, allowing flexibility and opportunities for residents in various sectors.

Sustainability Initiatives: Digital technologies can optimise resource use and improve sustainability practices in areas such as energy consumption, transportation, and waste management.

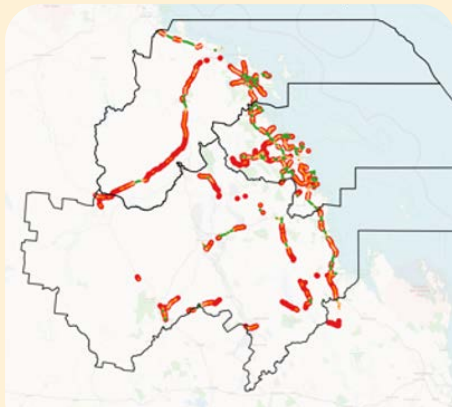
Overall, investing in digital infrastructure is foundational for fostering the region's long-term prosperity, resilience, and adaptability in an increasingly digital world.



Assessing Regional Connectivity: The 2024 Connect Greater Whitsunday Study

In 2024, the Greater Whitsunday RDCF engaged Gravelroad Group to conduct the Connect Greater Whitsunday study to assess connectivity across the region and work with local councils to determine key priorities; provide high-level project benefits and requirements; and present alignment to funding opportunities.

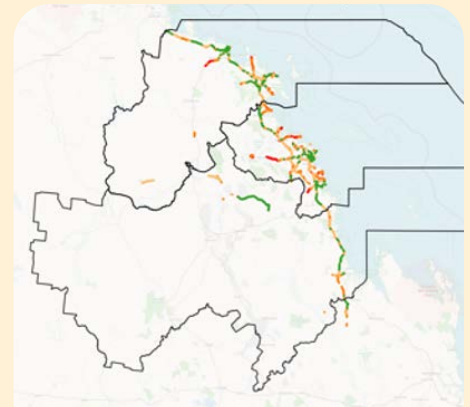
A crucial component of this study was an in-region drive test conducted over several weeks, capturing real-time mobile connectivity data across the region.



Telstra 4G Drive Testing Results



Optus 4G Drive Testing Results



TPG 4G Drive Testing Results

Figures 1, 2 & 3 — Examples of drive testing results.

Legend: ● Excellent ● Good ● Fair ● No/Poor/Unusable

Note: the study does not include planned connectivity infrastructure improvements, which may address some gaps identified in this assessment.

The findings from Gravelroad Group were then cross referenced across a comprehensive evaluation criteria, led by RDCF members:

- Alignment to Economic Development Plans / Opportunity
- Benefit to Population (Community and Business)
- Alignment to Funding Opportunities
- Addresses Community Safety and Disaster Resilience Needs



Connectivity Projects for the Greater Whitsunday Region

Greater Whitsunday Region projects map



A summary of the region's identified connectivity projects and high-level solutions are provided on the following pages. These business cases provide a path for achieving connectivity infrastructure goals through strategic advocacy, collaboration, and investment.

MACKAY REGION

Location	Problem	Solution	Benefits	Funding Opportunity
Mackay-Eungella Road	Mackay-Eungella Road area has poor to no mobile connectivity, causing unreliable internet access for local businesses and residents	Implement 5G infrastructure / upgrade for Telstra, Optus, and TPG Extend coverage area from Mirani to Netherdale, including Finch Hatton Gorge	Economic opportunities, tourism development, addresses needs of residents and businesses, community safety	Mobile Black Spot Program (MBP) or Regional Road Coverage Boost
Shoal Point	Limited mobile coverage in a growing residential area	Implement 5G infrastructure / upgrade for Telstra, Optus, and TPG	Addresses needs of 1,104 residents and 244 businesses	Peri-Urban Mobile Program (PUMP)
Seaforth/ Halliday Bay/ Ball Bay/Cape Hillsborough area	Rural coastal areas suffer from sub-optimal connectivity, with limited 4G coverage and lack of access to 5G or high-speed fixed line internet	Upgrade to NBN FTTP Bali Bay/ Halliday Bay Deploy Telstra 5G, Optus 5G, and TPG 5G networks at Seaforth / Halliday Bay / Ball Bay	Addresses needs of 1,233 residents and 254 businesses, tourism development	Regional Connectivity Program (RCP)
Sarina-Marlborough Road	Poor mobile connectivity No 5G coverage	Implement 5G mobile network infrastructure (Telstra, Optus, and TPG)	Improved mobile connectivity for residents, businesses and travellers, safety	Mobile Black Spot Program (MBP) Regional Road Coverage Boost
McEwens Beach	Poor fixed wireless NBN and mobile coverage, lacking adequate digital connectivity for residents and businesses	Upgrade to NBN FTTP Implement 5G infrastructure / upgrade for Telstra, Optus, and TPG	Addresses needs of residents and businesses, future SDA	Regional Connectivity Program (RCP)



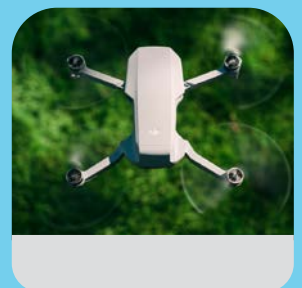
ISAAC REGION

Location	Problem	Solution	Benefits	Funding Opportunity
Peak Downs Highway	Poor to no mobile connectivity	Upgrade to 5G coverage for multiple carriers	Address needs for travellers/ heavy vehicle traffic and local business, Improved safety	Regional Road Coverage Boost (RRAMP).
Fitzroy Development Road	Poor to no connectivity, inadequate infrastructure for agricultural technologies	Implement 5G coverage from Telstra, Optus, and TPG	Improved safety, economic opportunities, tourism appeal	Regional Road Coverage Boost (RRAMP)
Marlborough-Sarina Road, including Clarke Creek	Poor to no mobile connectivity	Implement 5G coverage from Telstra, Optus, and TPG	Improved safety, economic opportunities, tourism appeal	Regional Road Coverage Boost (RRAMP)
Nebo	Inadequate NBN infrastructure	Upgrade to Fiber to the Premise (FTTP) and introduce 5G coverage from major carriers	Address needs business, residents, major events, and economic growth	Regional Connectivity Program (RCP)
Theresa Creek Dam	Poor to no connectivity	Implement 5G coverage from Telstra, Optus, and TPG	Enhanced safety, visitor experience, and smart technology integration for water management	Mobile Black Spot Program (MBP)



WHITSUNDAY REGION

Location	Problem	Solution	Benefits	Funding Opportunity
Airlie Beach	Inconsistent digital connectivity	Implement 5G coverage from Telstra, Optus, and TPG. Airlie Cres, Paluma Road, Orchid Road, and Tucker Road	Addresses needs for residents, businesses and tourists	Peri-Urban Mobile Program (PUMP)
Shute Harbour	Lack of 5G coverage	Implement 5G coverage from Telstra, Optus, and TPG	Enhanced connectivity for tourism, safety, and economic growth	Mobile Black Spot Program (MBP)
Conway Road, Wilson Beach, and Cedar Creek Falls	Poor to no fixed line and mobile connectivity	Implement NBN FTTP in Wilson Beach Implement 5G coverage from Telstra, Optus, and TPG in both Wilson Beach and Cedar Creek Falls	Addresses needs of residents, businesses and tourists	Mobile Black Spot Program (MBP)
Whitsunday Shores	Poor fixed and mobile connectivity	Implement connectivity upgrade including NBN FTTP and 5G coverage from Telstra, Optus, and TPG	Addresses needs of residents	Regional Connectivity Program (RCP)
Bowen Development Road between Bowen and Collinsville	Connectivity gaps	Implement 5G coverage from Telstra, Optus, and TPG	Improved mobile coverage and connectivity for road users, local residents and businesses	Mobile Black Spot Program (MBP)



Conclusion

To ensure the Greater Whitsunday region achieves its digital connectivity goals, we will:

- Actively advocate for improved digital infrastructure and seek buy-in from telecommunication providers to support and invest in priority connectivity projects.
- Identify and support applications for relevant funding programs.
- Continue to lead and collaborate to drive strategic advocacy and investment.

Improving digital infrastructure across the Greater Whitsunday region is essential for driving economic growth, enhancing safety, and improving the quality of life for residents.



Greater Whitsunday. Unlocking Greater Possibilities.



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